

# **METHODS AND APPARATUS FOR DYNAMIC HOME AGENT ASSIGNMENT IN MOBILE IP**

## **ABSTRACT OF THE DISCLOSURE**

Methods and apparatus are disclosed that enable a Home Agent to be dynamically assigned to a mobile node. A Mobility Agent supporting Mobile IP enables a mobile node to be registered with either the Mobility Agent or another "local" Home Agent, by receiving a registration request packet from the Mobile Node indicating that a key to be shared by the Mobile Node and an agent with which the Mobile Node is registering is requested. In addition, the agent with which the Mobile Node is registering (e.g., local Home Agent) may be assigned. For instance, a local Home Agent may be assigned if load balancing among multiple Home Agents is desired. A key to be shared by the Mobile Node and the agent with which the Mobile Node is registering is obtained. The key to be shared by the Mobile Node and the agent with which the Mobile Node is registering is then stored. A registration reply packet is then sent to the mobile node including the key to be shared by the Mobile Node and the agent with which the Mobile Node is registering. The mobile node may then re-register with the agent (e.g., local Home Agent) using the key.